

**NOTE TO: Kevin Mayer**

**FROM: Wayne Praskins**

**SUBJECT: EPA Efforts to Evaluate Perchlorate Contamination in the Mid 1980s at the San Gabriel Valley Sites**

**August 26, 1997**

I was prompted by the recent (re)discovery of perchlorate in groundwater to look at historical documents in the San Gabriel Basin site file. I found a number of relevant documents. From my reading of the documents (the most interesting are attached), and talking to Neil Ziemba (the RPM at the time), the basic history seems to be the following:

- \* As early as 10/83, EPA was aware that Aerojet had used perchlorate as a component of rocket fuel and may have discharged perchlorate wastes in the San Gabriel Basin.
- \* In 1/85, EPA used a private laboratory (Cal Analytical in Sacramento) to analyze 14 groundwater samples from the San Gabriel Basin for perchlorate. Cal Analytical used a proprietary colorimetric method, rather than the currently used ion chromatography (see attached 1/16/86 memo for description of analytical method). Cal Analytical claimed detection limits of 20 to 50 ug/l.
- \* The lab reported the presence of perchlorate in all samples, at concentrations ranging from 110 to 2,600 ug/l. However, contamination in 5 of 6 blank samples made the levels of contamination uncertain.
- \* In 12/85, EPA requested assistance from CDC regarding the toxicity of perchlorate. In 1/86, ATSDR/DHHS responded. They felt that quality assurance problems made it uncertain whether perchlorate was really present, and that the toxicity data were insufficient to determine an action level. They recommended resampling and, if the presence of perchlorate were confirmed, additional toxicity studies (see attached memoranda to and from CDC/ATSDR).
- \* Between 12/85 and 2/86, EPA distributed the perchlorate results to State and local agencies and affected water producers, including California DHS and the Regional Board. In

some of the early transmittal letters, EPA described the quality assurance problems associated with perchlorate analysis but concluded that "some perchlorate contamination exists." In later transmittal letters, EPA reports that the perchlorate results had been "deleted" due to possible analytical interference by nitrate and other anions known to be present in San Gabriel Basin groundwater.

\* Some of the memoranda also state that EPA was trying to identify a more reliable analytical method, and, if successful, would resample wells for perchlorate. Apparently, other issues were more pressing and a more reliable analytical method was not identified.